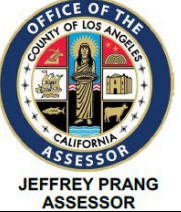


EXHIBIT “3”

	<p align="center">PERSONAL PROPERTY HANDBOOK</p>		NO. 5430-01-25	
			EFFECTIVE 01-01-2023	
			PAGE 1	OF 12
			PUBLISHED 03-28-2023	

TRENDING FACTORS CALCULATION

The value approach most frequently used to determine the market value of depreciable assets is the "Replacement Cost Method." Property Tax Rule 6 paragraph(c) states: "The original cost of reproducible property shall be adjusted, in the aggregate or by groups, for price level changes since original construction by multiplying the cost incurred in a given year by an appropriate price index factor..."

1. CALCULATION

- 1.1 Trending factors are calculated by multiplying the price index factors by the percent good factors.
- 1.2 The price index factor is used to convert original or acquisition cost to replacement cost new (RCN).
- 1.3 The percent good factor converts the replacement cost new to replacement cost new less normal depreciation (RCLND).

2. PRICE INDEX FACTORS

- 2.1 The index factors used in the trend factor calculations are primarily based on the State Board of Equalization's (BOE) Equipment Index and Percent Good Factors published in the Assessor's Handbook Section 581 (AH581) and the California Assessor's Association's (CAA) Business Assessment Factors. The index factors contained in both publications for various types of equipment are updated annually and are derived using data from various sources.
 - A. Commercial equipment index factors are compiled based on equipment price data published by the Marshall and Swift Publication Company, Marshall Valuation Service.
 - B. The index factors for Industrial Machinery and Equipment are derived using the U.S. Bureau of Labor Statistics' Producer Price Indexes.
- 2.2 As recommended by the BOE, the maximum price index factor (MPIF) used in the calculations is the factor at the age equal to 125% of the average service life. For example: For 12-year life equipment, the MPIF would be the factor at age 15 ($12 \times 125\% = 15$). This same factor is used for age 16 and older.

3. PERCENT GOOD FACTORS

- 3.1 The percent good factors used in the trend factor calculations are the BOE's Machinery and Equipment Percent Good Factors published in AH581. These factors are updated annually by the BOE due to fluctuations in the rate of return.
- 3.2 The minimum percent good factors that are reflected in the trend factors tables are consistent with the recommendations contained in the CAA's Business Assessment Factors. Effective lien date 2005, the CAA recommended a minimum percent good factor of nine (9) percent for industrial property, and ten (10) percent for commercial property when applying the Machinery and Equipment Percent Good Factors. Effective lien date 2007, the CAA recommends a minimum percent good factor of 11 percent for fixed agricultural property. In addition, the minimum percent good factors for the range of economic lives that are commonly used (3-year to 20-year) coincide with the salvage value as suggested and published by Marshall Valuation Services.
- 3.3 Although the trend factor table reflects a cut off, NO MANDATORY MINIMUM PERCENT GOOD IS INTENDED. The appraiser may make adjustments to this cut off if the deviation can be adequately evidenced and documented.

4. TREND FACTOR TABLES

- 4.1 Appraisal Standards annually prepares the trend factor tables for commercial equipment and industrial machinery and equipment. In addition, tables are prepared for specific classes of equipment, untrended factors, and trend factors with sales tax for commercial equipment.
- 4.2 Refer to [Memo 5432](#) for trend factors tables and related guidelines.
- 4.3 The Commercial Equipment and Industrial Machinery and Equipment Trend Factors are intended for use when valuing equipment or personal property reported on Schedule A-1 of the Business Property Statement. The Business Classification Code (BCC) of a particular assessee will determine which trend factor table is appropriate to use in the assessment. The BCC list is detailed in [Memo 5402-90](#).
 - A. If the BCC of a particular assessee is listed under the general classification of Industrial in [Memo 5402-90](#), the Industrial Machinery and Equipment Factors will be applied to the cost reported on Schedule A-1 of the Business Property Statement.
 - B. If the BCC of a particular assessee is listed under the general classification of Commercial in [Memo 5402-90](#), the Commercial Equipment Factors will be applied to the cost reported on Schedule A-1 of the Business Property Statement.
 - C. Personal property or fixtures reported on Schedules A-2, A-3, A-4, and B-2 will be assessed using the Commercial Equipment Factors regardless of the taxpayer's BCC.

- 4.4 Non-production Computer Valuation Factors have been provided annually since 1996 by the BOE through Letters to Assessor (LTA). Starting with lien date 2000, these factors were included in the AH581 as part of the annual update.

On April 15, 2009 (effective lien date 2010), the BOE adopted the Non-production Computer Valuation Factors table (AH581, Table 7) which contained valuation factors for two categories: (1) Personal computers and (2) Local area network (LAN) equipment (including mainframe computers).

- 4.5 In December 2009, (effective lien date 2010), the BOE adopted the Document Processor Valuation Factors table (AH581 Table 10). Also effective lien date 2010, the CAA replaced their Copier Equipment Valuation Factors table with the BOE's new valuation factors for document processors. Based on the new valuation guidelines, document processors have a 10 percent minimum valuation factor beyond age 8.
- 4.6 For the 2009 lien date, the BOE added a LHI-fixtures category to Table 8 of the AH-581 for the semiconductor manufacturing industry. Semiconductor LHI-fixtures are based on a 10-year economic life trended with a minimum percent good factor of 10 percent. Semiconductor M&E valuation factors are based on a 6-year economic life untrended with a minimum percent good factor of 8 percent. The BOE also provided an asset listing to aid in the classification of M&E and LHI-fixture items.
- 4.7 Taxable fixtures owned by banks, insurance companies, and financial institutions are addressed in separate trend factor tables. The Commercial Equipment index factors from AH581 are used to calculate the trend factors.
- 4.8 Automated Teller Machines (ATMs) are addressed in separate tables. Effective lien date 2007, the CAA no longer recommends a 25% minimum percent good factor for ATMs. The Commercial Equipment index factors in Table 1 of AH581 are used to calculate the trend factors for the two types of ATMs.
- 4.9 For lien date 2009, the BOE began providing indexed (trended) biopharmaceutical valuation factors in Table 9 of the AH-581. In Position Paper 09-001, the CAA recommended the use of Table 9 for the valuation of equipment and fixtures in the Biotech industry.
- 4.10 The Billboard Valuation Guideline became effective beginning lien date 2000. The guideline is consistent with the CAA recommendation that billboards classified as fixtures and treated as real property be assessed at factored base year value unless the appraiser has appraisal data that derives a market value lower than the factored base year value.

Effective lien date 2004, billboards will be valued based on the following methodology recommended by the CAA Billboard Committee (CAA Position Paper 04-001, Section III). When billboards change ownership or are newly constructed, establish the base year value using the current Caltrans Schedule. The Caltrans Payment Schedule for Poster Panel Removal is available at the Caltrans website www.dot.ca.gov. Each year thereafter, compare the factored base year value of the billboard to the fair market value as established by the current Caltrans schedule and enroll the lower value.

- 4.11 A fixed Agricultural Equipment trend table was created using the index and percent good factors found in Table 3 and Table 4, respectively, of the AH581. This table uses the CAA recommended 15-year economic life.
- 4.12 For Agricultural and Construction Mobile Equipment, the comparative sales approach, if possible, is recommended. However, if the comparative sales approach is not used, then the cost approach using the appropriate trend table can be employed. The trend tables were created using the index and percent good factors found in Table 3 and Table 5 respectively of AH581.
- 4.13 The Dairy and Cotton Gin trend factor table is consistent with the recommendations contained in Section IV of CAA Position Paper 05-001. The Dairy and Cotton Gin trend factors are calculated using the Agricultural Equipment Index Factors in Table 3 of AH581.
- 4.14 In December, 2009 (effective lien date 2010), the BOE adopted the Offset Lithographic Printing Presses Valuation table (AH581, Table 11). A 10 percent minimum valuation factor applies to devices beyond age 13.
- 4.15 These factors are entered into the Personal Property Assessment System by the Information Technology Division.
- 4.16 Effective lien date 2016, the CAA introduced four new equipment categories and three new valuation factor tables. The first category, Set-Top Boxes (Table J), refers to the information appliance device used in the cable and satellite TV industry. It, typically, connects a subscriber's television with an external signal source enabling proprietary content to be displayed on the television screen (or other device). The three remaining categories are types of casino gaming equipment – specifically, Electronic Slot Machines (Table L), Mechanical Slot Machines (Table M), and other Gaming Equipment (also Table M).
- 4.17 The *Supplemental Schedule to Form 571-L for Theatres* (ASSR-B-158A) was redesigned for lien date 2016. A separate category for Projection Equipment (PP Type-31PE) was created, and assigned a life of 8/UNT. This change was made in order to recognize the current, nearly universal, use of *digital* projection equipment. For lien date 2017, the CAA determined the trend table for Projection Equipment is 10 years untrended.
- 4.18 Effective lien date 2017, the CAA, introduced a new category and revised another partially related description. An Industrial Mining & Aggregate subcommittee was formed to conduct a study to determine an appropriate economic life for this type of industrial mining equipment. The intent was to also address the confusion with respect to property tax appeals. The current guidelines have a 15-year life recommendation for Sand/Dirt/Gravel Suppliers, however, this is specifically for equipment of a wholesale or retail nature. This category description does not represent the specific type of machinery & equipment that is used for the extraction of minerals, including construction aggregates. A new separate category was added to read: **“Mineral and Construction Aggregate Extraction”** with a recommended 20-year industrial life classification. The sand, dirt and gravel category will now read: **“Sand/Dirt/Gravel – Retail/Wholesale Suppliers”** and will remain at a 15-year life.

5. POSSESSORY INTEREST COMPOSITE FACTORS

These assume a three-year reversion. Without any actual data regarding the contract term or agreement, the composite factors derived from this method are applied to the reported costs of government owned fixtures (most often reported by defense contractors) to estimate taxable possessory interest. These factors are primarily used to facilitate timely processing of Business Property Statements.

- 5.1 The possessory interest reversion factor is arrived at by multiplying the Commercial Equipment index factor (see [Section 2.1](#)) by a modified percent good factor (see [Exhibit 1](#), Page [7](#)).
- 5.2 The possessory interest composite factor is then calculated by multiplying the reversion factor by a present value factor using present worth tables for a three year period at an estimated capitalization rate. The product, which represents the present value of the reversion, is then subtracted from the Commercial Equipment trend factor (see [Section 4.3](#)) to arrive at the composite factor (see [Exhibit 2](#), Page [8](#)).
- 5.3 The capitalization rate is based upon current market interest data.

6. USE OF GUIDELINES AND FACTORS

Under normal conditions, the following guidelines and the trending factor tables are to be used in valuing depreciable assets for uniformity and equalization of like properties.

- 6.1 From Handbook [Memo 5431-01](#), select the life and fixture percentage for the type of equipment or asset being appraised.
- 6.2 From the Trending Factor tables (see [Memo 5432](#)), locate the column that matches the life and the factor at the year of acquisition.
- 6.3 Apply the factor to the cost figure reported on the assessee's Business Property Statement to arrive at the market value using the Replacement Cost Method.

7. DEPARTURE FROM THE TRENDING GUIDELINES AND/OR FACTORS

- 7.1 If adequate evidence of deviation has been presented, and it is determined that an adjustment to the factors is appropriate, document this departure from normal guidelines on form B-181, the Adjustment Work Sheet. Unsubstantiated methods of valuation (e.g., homemade trend tables or straight line projections) are not considered sufficient evidence.
- 7.2 Obtain the approval of the supervising appraiser and other supplemental approvals as required. (Refer to [Memo 5450-05](#) for approval procedures.)

8. SALVAGE VALUE

- 8.1 See Page 11 for a schedule of salvage value percentages from Marshall Valuation Service.

- 8.2 The schedule is used to estimate the salvage value of an asset, the value which highly depreciated improvements, fixtures, or personal property would have if dismantled and sold in separate parts, i.e. the value of an asset at the end of its economic life.
- 8.3 The salvage value percentage is applied to the replacement cost new (original cost multiplied by price index factor) of the asset to arrive at a salvage value estimate.
- 8.4 Salvage value estimates are to be documented on Adjustment Form B-181. (Refer to [Memo 5450-05](#) for approval procedures.)

2023 Possessory Interest Reversion Value Factors (3-Year Reversion)
Commercial Equipment

Year of Acq.	TABLE 1 AH581	Age	5 Year		6 Year		8 Year		REMARKS:			
			Mod.% Good	Reversion Fctr.	Mod.% Good	Reversion Fctr.	Mod.% Good	Reversion Fctr.				
2022	1.0000	1	28	28	37	37	52	52	1. This PI Composite trend factors assume a three-year reversion. 2. The modified % good for age 1 for each economic life indicated on this table corresponds to AH581, Table 4: Machinery And Equipment Percent Good Factors for age 4 (the age after the reversion). Likewise, the modified % good for age 2 on this table corresponds to the % good for age 5, and so forth. 3. The reversion factor is the product of the applicable factor from AH581, Table 1: Commercial Equipment Index Factors and the the modified % good. The derived reversion factor is used in the next table to calculate the composite trend factors.			
2021	1.1500	2	16	18	26	30	41	47				
2020	1.2500	3	10	13	16	20	32	40				
2019	1.2600	4	10	13	10	13	24	30				
2018	1.3000	5	10	13	10	13	17	22				
2017	1.3500	6	10	13	10	13	12	16				
2016	1.3800	7	10	13	10	13	10	14				
2015	1.3700	8	10	13	10	13	10	14				
Year of Acq.	TABLE 1 AH581	Age	10 Year		12 Year		15 Year		20 Year		25 Year	
			Mod.% Good	Reversion Fctr.	Mod.% Good	Reversion Fctr.	Mod.% Good	Reversion Fctr.	Mod.% Good	Reversion Fctr.	Mod.% Good	Reversion Fctr.
2022	1.0000	1	62	62	69	69	76	76	83	83	87	87
2021	1.1500	2	53	61	61	70	70	81	78	90	84	97
2020	1.2500	3	44	55	54	68	64	80	74	93	80	100
2019	1.2600	4	36	45	46	58	58	73	70	88	77	97
2018	1.3000	5	29	38	40	52	52	68	65	85	74	96
2017	1.3500	6	23	31	33	45	46	62	61	82	70	95
2016	1.3800	7	17	23	27	37	41	57	56	77	67	92
2015	1.3700	8	13	18	22	30	35	48	52	71	63	86
2014	1.3800	9	10	14	18	25	31	43	48	66	60	83
2013	1.4000	10	10	14	14	20	26	36	44	62	56	78
2012	1.4200	11	10	14	11	16	22	31	40	57	53	75
2011	1.4500	12	10	14	10	15	19	28	36	52	50	73
2010	1.4900	13	10	14	10	15	15	22	32	48	46	69
2009	1.4900	14	10	14	10	15	13	19	29	43	43	64
2008	1.5300	15	10	14	10	15	11	17	26	40	40	61
2007	1.5800	16	10	14	10	15	10	16	23	36	37	58
2006	1.6600	17	10	14	10	15	10	16	20	33	34	56
2005	1.7300	18	10	14	10	15	10	16	17	29	31	54
2004	1.8500	19	10	14	10	15	10	16	15	28	28	52
2003	1.9100	20	10	14	10	15	10	16	13	25	26	50
2002	1.9300	21	10	14	10	15	10	16	12	23	23	44
2001	1.9500	22	10	14	10	15	10	16	10	20	21	41
2000	1.9600	23	10	14	10	15	10	16	10	20	19	37
1999	2.0000	24	10	14	10	15	10	16	10	20	17	34
1998	2.0000	25	10	14	10	15	10	16	10	20	15	30
1997	2.0200	26	10	14	10	15	10	16	10	20	14	28
1996	2.0500	27	10	14	10	15	10	16	10	20	12	25
1995	2.0800	28	10	14	10	15	10	16	10	20	11	23
1994	2.1500	29	10	14	10	15	10	16	10	20	10	21
1993	2.2100	30	10	14	10	15	10	16	10	20	10	21
1992	2.2600	31	10	14	10	15	10	16	10	20	10	21
1991	2.2900	32	10	14	10	15	10	16	10	20	10	21
1990	2.3400	33	10	14	10	15	10	16	10	20	10	21
1989	2.4000	34	10	14	10	15	10	16	10	20	10	21

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Trending Factors Calculations

2023 Possessory Interest Composite Trend Factors (3-Year Reversion)

Year of Acq.	Discount Rate	Present Value Factor*	5 Year				6 Year				8 Year				10 Year			
			Reversion Factor	Present Value of Rev. Fctr.	Com'l Equipment Trend Fctr.	Poss. Int. Composite Trend Fctr.	Reversion Factor	Present Value of Rev. Fctr.	Com'l Equipment Trend Fctr.	Poss. Int. Composite Trend Fctr.	Reversion Factor	Present Value of Rev. Fctr.	Com'l Equipment Trend Fctr.	Poss. Int. Composite Trend Fctr.	Reversion Factor	Present Value of Rev. Fctr.	Com'l Equipment Trend Fctr.	Poss. Int. Composite Trend Fctr.
2022	8%	0.7938	28	22.23	80	57.77	37	29.37	83	53.63	52	41.28	88	46.72	62	49.22	90	40.78
2021	8%	0.7938	18	14.29	69	54.71	30	23.81	77	53.19	47	37.31	86	48.69	61	48.42	93	44.58
2020	8%	0.7938	13	10.32	54	43.68	20	15.88	64	48.12	40	31.75	79	47.25	55	43.66	89	45.34
2019	8%	0.7938	13	10.32	35	24.68	13	10.32	47	36.68	30	23.81	66	42.19	45	35.72	78	42.28
2018	8%	0.7938	13	10.32	21	10.68	13	10.32	34	23.68	22	17.46	53	35.54	38	30.16	69	38.84
2017	8%	0.7938	13	10.32	14	3.68	13	10.32	22	11.68	16	12.70	43	30.30	31	24.61	59	34.39
2016	8%	0.7938	13	10.32	14	3.68	13	10.32	14	3.68	14	11.11	33	21.89	23	18.26	50	31.74
2015	8%	0.7938	13	10.32	14	3.68	13	10.32	14	3.68	14	11.11	23	11.89	18	14.29	40	25.71
2014	8%	0.7938	13	10.32	14	3.68	13	10.32	14	3.68	14	11.11	17	5.89	14	11.11	32	20.89
2013	8%	0.7938	13	10.32	14	3.68	13	10.32	14	3.68	14	11.11	14	2.89	14	11.11	24	12.89
2012	8%	0.7938	13	10.32	14	3.68	13	10.32	14	3.68	14	11.11	14	2.89	14	11.11	18	6.89
2011	8%	0.7938	13	10.32	14	3.68	13	10.32	14	3.68	14	11.11	14	2.89	14	11.11	15	3.89
2010	8%	0.7938	13	10.32	14	3.68	13	10.32	14	3.68	14	11.11	14	2.89	14	11.11	15	3.89
Year of Acq.	Discount Rate	Present Value Factor*	12 Year				15 Year				20 Year				25 Year			
			Reversion Factor	Present Value of Rev. Fctr.	Com'l Equipment Trend Fctr.	Poss. Int. Composite Trend Fctr.	Reversion Factor	Present Value of Rev. Fctr.	Com'l Equipment Trend Fctr.	Poss. Int. Composite Trend Fctr.	Reversion Factor	Present Value of Rev. Fctr.	Com'l Equipment Trend Fctr.	Poss. Int. Composite Trend Fctr.	Reversion Factor	Present Value of Rev. Fctr.	Com'l Equipment Trend Fctr.	Poss. Int. Composite Trend Fctr.
2022	8%	0.7938	69	54.77	92	37.23	76	60.33	94	33.67	83	65.89	96	30.11	87	69.06	97	27.94
2021	8%	0.7938	70	55.57	97	41.43	81	64.30	101	36.70	90	71.44	106	34.56	97	77.00	108	31.00
2020	8%	0.7938	68	53.98	95	41.02	80	63.60	103	39.50	93	73.82	109	35.18	100	79.38	113	33.62
2019	8%	0.7938	58	46.04	87	40.96	73	57.95	96	38.05	88	69.85	105	35.15	97	77.00	110	33.00
2018	8%	0.7938	52	41.28	79	37.72	68	53.98	91	37.02	85	67.47	101	33.53	96	76.20	109	32.80
2017	8%	0.7938	45	35.72	73	37.28	62	49.22	86	36.78	82	65.09	100	34.91	95	75.41	108	32.59
2016	8%	0.7938	37	29.37	63	33.63	57	45.25	80	34.75	77	61.12	97	35.88	92	73.03	106	32.97
2015	8%	0.7938	30	23.81	55	31.19	48	38.10	71	32.90	71	56.36	89	32.64	86	68.27	101	32.73
2014	8%	0.7938	25	19.85	46	26.15	43	34.13	63	28.87	66	52.39	84	31.61	83	65.89	97	31.11
2013	8%	0.7938	20	15.88	38	22.12	36	28.58	57	28.42	62	49.22	78	28.78	78	61.92	94	32.08
2012	8%	0.7938	16	12.70	31	18.30	31	24.61	50	25.39	57	45.25	74	28.75	75	59.54	89	29.46
2011	8%	0.7938	15	11.91	26	14.09	28	22.23	45	22.77	52	41.28	70	28.72	73	57.95	87	29.05
2010	8%	0.7938	15	11.91	21	9.09	22	17.46	39	21.54	48	38.10	66	27.90	69	54.77	83	28.23
2009	8%	0.7938	15	11.91	16	4.09	19	15.08	33	17.92	43	34.13	60	25.87	64	50.80	79	28.20
2008	8%	0.7938	15	11.91	15	3.09	17	13.49	29	15.51	40	31.75	55	23.25	61	48.42	77	28.58
2007	8%	0.7938	15	11.91	15	3.09	16	12.70	24	11.30	36	28.58	51	22.42	58	46.04	73	26.96
2006	8%	0.7938	15	11.91	15	3.09	16	12.70	22	9.30	33	26.20	48	21.80	56	44.45	71	26.55
2005	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	29	23.02	45	21.98	54	42.87	69	26.13
2004	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	28	22.23	43	20.77	52	41.28	68	26.72
2003	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	25	19.85	38	18.15	50	39.69	65	25.31
2002	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	23	18.26	33	14.74	44	34.93	60	25.07
2001	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	29	13.12	41	32.55	55	22.45
2000	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	25	9.12	37	29.37	51	21.63
1999	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	24	8.12	34	26.99	46	19.01
1998	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	30	23.81	42	18.19
1997	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	28	22.23	38	15.77
1996	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	25	19.85	35	15.15
1995	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	23	18.26	31	12.74
1994	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	21	16.67	30	13.33
1993	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	21	16.67	27	10.33
1992	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	21	16.67	25	8.33
1991	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	21	16.67	23	6.33
1990	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	21	16.67	23	6.33
1989	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	21	16.67	23	6.33
1988	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	21	16.67	23	6.33
1987	8%	0.7938	15	11.91	15	3.09	16	12.70	19	6.30	20	15.88	20	4.12	21	16.67	23	6.33

NO MANDATORY MINIMUM PERCENT GOOD INTENDED
Please refer to Handbook Memo 5430-1 for Marshall Valuation Service's salvage value percentages.

* PW = \$1.00, n = 3, i = 8%

Prepared by: Assessment Services Division 01/2023

Personal Property Handbook
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2023 PERSONAL PROPERTY TREND FACTOR CALCULATIONS

Commercial Equipment Trend Factor Calculations											REMARKS:											
Year Acq.	Index Factor	Age	3 Yr (MPIF 4)		4 Yr (MPIF 5)		5 Yr (MPIF 6)		6 Yr (MPIF 8)		MPIF = Maximum Price Index Factor. The number beside the MPIF is the age equal to 125% of that average life, rounded to the nearest whole number. The MPIF used in the trend tables is set at 125% of the average life (shaded line). Example: For 3-yr life equipment, the MPIF would be at 3.75 (3 x 125% = 3.75) or 4 years. The MPIF would be the 2019 factor 1.26. At age 5 and older the factor would remain at 1.26.											
			% Good	Factor	% Good	Factor	% Good	Factor	% Good	Factor				% Good	Factor	% Good	Factor	% Good	Factor	% Good	Factor	
2022	1.00	1	66	66	74	74	80	80	83	83	2022	1.00	1	95	95	96	96	97	97	98	98	
2021	1.15	2	36	41	51	59	60	69	67	77	2021	1.15	2	90	104	92	106	94	108	95	109	
2020	1.25	3	16	20	31	39	43	54	51	64	2020	1.25	3	84	105	87	109	90	113	93	116	
2019	1.26	4	10	13	16	20	28	35	37	47	2019	1.26	4	79	100	83	105	87	110	90	113	
2018	1.30	5	10	13	10	13	16	21	26	34	2018	1.30	5	74	96	78	101	84	109	87	113	
2017	1.35	6	10	13	10	13	10	14	16	22	2017	1.35	6	68	92	74	100	80	108	85	115	
2016	1.38	7	10	13	10	13	10	14	10	14	2016	1.38	7	63	87	70	97	77	106	82	113	
2015	1.37	8	10	13	10	13	10	14	10	14	2015	1.37	8	58	79	65	89	74	101	79	108	
2014	1.38	9	10	13	10	13	10	14	10	14	2014	1.38	9	53	73	61	84	70	97	77	106	
2013	1.40	10	10	13	10	13	10	14	10	14	2013	1.40	10	48	67	56	78	67	94	74	104	
2012	1.42	11	10	13	10	13	10	14	10	14	2012	1.42	11	43	61	52	74	63	89	71	101	
2011	1.45	12	10	13	10	13	10	14	10	14	2011	1.45	12	38	55	48	70	60	87	68	99	
2010	1.49	13	10	13	10	13	10	14	10	14	2010	1.49	13	34	51	44	66	56	83	65	97	
Year Acq.	Index Factor	Age	8 Yr (MPIF 10)		10 Yr (MPIF 13)		12 Yr (MPIF 15)		15 Yr (MPIF 19)					% Good	Factor	% Good	Factor	% Good	Factor	% Good	Factor	
2022	1.00	1	88	88	90	90	92	92	94	94	2009	1.49	14	30	45	40	60	53	79	63	94	
2021	1.15	2	75	86	81	93	84	97	88	101	2008	1.53	15	26	40	36	55	50	77	60	92	
2020	1.25	3	63	79	71	89	76	95	82	103	2007	1.58	16	22	35	32	51	46	73	57	90	
2019	1.26	4	52	66	62	78	69	87	76	96	2006	1.66	17	19	32	29	48	43	71	54	90	
2018	1.30	5	41	53	53	69	61	79	70	91	2005	1.73	18	16	28	26	45	40	69	52	90	
2017	1.35	6	32	43	44	59	54	73	64	86	2004	1.85	19	14	26	23	43	37	68	49	91	
2016	1.38	7	24	33	36	50	46	63	58	80	2003	1.91	20	11	21	20	38	34	65	46	88	
2015	1.37	8	17	23	29	40	40	55	52	71	2002	1.93	21	10	19	17	33	31	60	43	83	
2014	1.38	9	12	17	23	32	33	46	46	63	2001	1.95	22	10	19	15	29	28	55	41	80	
2013	1.40	10	10	14	17	24	27	38	41	57	2000	1.96	23	10	19	13	25	26	51	38	74	
2012	1.42	11	10	14	13	18	22	31	35	50	1999	2.00	24	10	19	12	24	23	46	36	72	
2011	1.45	12	10	14	10	15	18	26	31	45	1998	2.00	25	10	19	10	20	21	42	33	66	
2010	1.49	13	10	14	10	15	14	21	26	39	1997	2.02	26	10	19	10	20	19	38	31	63	
2009	1.49	14	10	14	10	15	11	16	22	33	1996	2.05	27	10	19	10	20	17	35	29	59	
2008	1.53	15	10	14	10	15	10	15	19	29	1995	2.08	28	10	19	10	20	15	31	26	54	
2007	1.58	16	10	14	10	15	10	15	15	24	1994	2.15	29	10	19	10	20	14	30	24	52	
2006	1.66	17	10	14	10	15	10	15	13	22	1993	2.21	30	10	19	10	20	12	27	22	49	
2005	1.73	18	10	14	10	15	10	15	11	19	1992	2.26	31	10	19	10	20	11	25	21	47	
2004	1.85	19	10	14	10	15	10	15	10	19	1991	2.29	32	10	19	10	20	10	23	19	44	
2003	1.91	20	10	14	10	15	10	15	10	19	1990	2.34	33	10	19	10	20	10	23	17	40	
2002	1.93	21	10	14	10	15	10	15	10	19	1989	2.40	34	10	19	10	20	10	23	16	38	
2001	1.95	22	10	14	10	15	10	15	10	19	1988	2.52	35	10	19	10	20	10	23	14	35	
2000	1.96	23	10	14	10	15	10	15	10	19	1987	2.63	36	10	19	10	20	10	23	13	34	
1999	2.00	24	10	14	10	15	10	15	10	19	1986	2.67	37	10	19	10	20	10	23	12	32	
1998	2.00	25	10	14	10	15	10	15	10	19	1985	2.71	38	10	19	10	20	10	23	11	30	
1997	2.02	26	10	14	10	15	10	15	10	19	1984	2.75	39	10	19	10	20	10	23	10	27	
1996	2.05	27	10	14	10	15	10	15	10	19	1983	2.83	40	10	19	10	20	10	23	10	27	
1995	2.08	28	10	14	10	15	10	15	10	19	1982	2.89	41	10	19	10	20	10	23	10	27	
1994	2.15	29	10	14	10	15	10	15	10	19	1981	3.02	42	10	19	10	20	10	23	10	27	
1993	2.21	30	10	14	10	15	10	15	10	19	1980	3.31	43	10	19	10	20	10	23	10	27	
1992	2.26	31	10	14	10	15	10	15	10	19												
1991	2.29	32	10	14	10	15	10	15	10	19												
1990	2.34	33	10	14	10	15	10	15	10	19												
1989	2.40	34	10	14	10	15	10	15	10	19												
NO MANDATORY MINIMUM PERCENT GOOD INTENDED																						
Please refer to Handbook Memo 5430-1 for Marshall Valuation Service's salvage value percentages.																						

NO MANDATORY MINIMUM PERCENT GOOD INTENDED

Please refer to Handbook Memo 5430-1 for Marshall Valuation Service's salvage value percentages.

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Note: Cells have been shaded orange in the year of the Maximum Price Index Factor (MPIF). For a definition see Memo 5430-1, Section 2.2.

2023 PERSONAL PROPERTY TREND FACTOR CALCULATIONS

Industrial Machinery and Equipment Trend Factor Calculations										REMARKS:											
Year Acq.	Index Factor	Age	3 Yr (MPIF 4)		4 Yr (MPIF 5)		5 Yr (MPIF 6)		6 Yr (MPIF 8)		MPIF = Maximum Price Index Factor. The number beside the MPIF is the age equal to 125% of that average life, rounded to the nearest whole number. The MPIF used in the trend tables is set at 125% of the average life (shaded line). Example: For 3-yr life equipment, the MPIF would be at 3.75 (3 x 125% = 3.75) or 4 years. The MPIF would be the 2019 factor 1.22. At age 5 and older the factor would remain at 1.22.										
			% Good	Factor	% Good	Factor	% Good	Factor	% Good	Factor											
2022	1.00	1	66	66	74	74	80	80	83	83											
2021	1.12	2	36	40	51	57	60	67	67	75											
2020	1.21	3	16	19	31	38	43	52	51	62											
2019	1.22	4	9	11	16	20	28	34	37	45											
2018	1.25	5	9	11	9	11	16	20	26	33											
2017	1.28	6	9	11	9	11	9	12	16	20											
2016	1.30	7	9	11	9	11	9	12	10	13											
2015	1.30	8	9	11	9	11	9	12	9	12											
2014	1.31	9	9	11	9	11	9	12	9	12											
2013	1.33	10	9	11	9	11	9	12	9	12											
2012	1.34	11	9	11	9	11	9	12	9	12											
2011	1.36	12	9	11	9	11	9	12	9	12											
2010	1.40	13	9	11	9	11	9	12	9	12											
Year Acq.	Index Factor	Age	8 Yr (MPIF 10)		10 Yr (MPIF 13)		12 Yr (MPIF 15)		15 Yr (MPIF 19)		17 Yr (MPIF 21)		20 Yr (MPIF 25)		25 Yr (MPIF 31)		30 Yr (MPIF 38)				
			% Good	Factor	% Good	Factor	% Good	Factor	% Good	Factor	% Good	Factor	% Good	Factor	% Good	Factor	% Good	Factor			
2022	1.00	1	88	88	90	90	92	92	94	94	95	95	96	96	97	97	98	98			
2021	1.12	2	75	84	81	91	84	94	88	99	90	101	92	103	94	105	95	106			
2020	1.21	3	63	76	71	86	76	92	82	99	84	102	87	105	90	109	93	113			
2019	1.22	4	52	63	62	76	69	84	76	93	79	96	83	101	87	106	90	110			
2018	1.25	5	41	51	53	66	61	76	70	88	74	93	78	98	84	105	87	109			
2017	1.28	6	32	41	44	56	54	69	64	82	68	87	74	95	80	102	85	109			
2016	1.30	7	24	31	36	47	46	60	58	75	63	82	70	91	77	100	82	107			
2015	1.30	8	17	22	29	38	40	52	52	68	58	75	65	85	74	96	79	103			
2014	1.31	9	12	16	23	30	33	43	46	60	53	69	61	80	70	92	77	101			
2013	1.33	10	9	12	17	23	27	36	41	55	48	64	56	74	67	89	74	98			
2012	1.34	11	9	12	13	17	22	29	35	47	43	58	52	70	63	84	71	95			
2011	1.36	12	9	12	10	14	18	24	31	42	38	52	48	65	60	82	68	92			
2010	1.40	13	9	12	9	13	14	20	26	36	34	48	44	62	56	78	65	91			
2009	1.40	14	9	12	9	13	11	15	22	31	30	42	40	56	53	74	63	88			
2008	1.41	15	9	12	9	13	9	13	19	27	26	37	36	51	50	71	60	85			
2007	1.47	16	9	12	9	13	9	13	15	22	22	32	32	47	46	68	57	84			
2006	1.51	17	9	12	9	13	9	13	13	20	19	29	29	44	43	65	54	82			
2005	1.56	18	9	12	9	13	9	13	11	17	16	25	26	41	40	62	52	81			
2004	1.62	19	9	12	9	13	9	13	9	15	14	23	23	37	37	60	49	79			
2003	1.69	20	9	12	9	13	9	13	9	15	203	1.69	20	11	19	20	34	34	57	46	78
2002	1.69	21	9	12	9	13	9	13	9	15	2002	1.69	21	10	17	17	29	31	52	43	73
2001	1.69	22	9	12	9	13	9	13	9	15	2001	1.69	22	9	15	15	25	28	47	41	69
2000	1.70	23	9	12	9	13	9	13	9	15	2000	1.70	23	9	15	13	22	26	44	38	65
1999	1.72	24	9	12	9	13	9	13	9	15	1999	1.72	24	9	15	12	21	23	40	36	62
1998	1.73	25	9	12	9	13	9	13	9	15	1998	1.73	25	9	15	10	17	21	36	33	57
1997	1.75	26	9	12	9	13	9	13	9	15	1997	1.75	26	9	15	9	16	19	33	31	54
1996	1.78	27	9	12	9	13	9	13	9	15	1996	1.78	27	9	15	9	16	17	30	29	52
1995	1.82	28	9	12	9	13	9	13	9	15	1995	1.82	28	9	15	9	16	15	27	26	47
1994	1.88	29	9	12	9	13	9	13	9	15	1994	1.88	29	9	15	9	16	14	26	24	45
1993	1.91	30	9	12	9	13	9	13	9	15	1993	1.91	30	9	15	9	16	12	23	22	42
1992	1.95	31	9	12	9	13	9	13	9	15	1992	1.95	31	9	15	9	16	11	21	21	41
1991	1.98	32	9	12	9	13	9	13	9	15	1991	1.98	32	9	15	9	16	10	20	19	38
1990	2.03	33	9	12	9	13	9	13	9	15	1990	2.03	33	9	15	9	16	9	18	17	35
1989	2.09	34	9	12	9	13	9	13	9	15	1989	2.09	34	9	15	9	16	9	18	16	33
1988	2.19	35	9	12	9	13	9	13	9	15	1988	2.19	35	9	15	9	16	9	18	14	31
											1987	2.29	36	9	15	9	16	9	18	13	30
											1986	2.33	37	9	15	9	16	9	18	12	28
											1985	2.37	38	9	15	9	16	9	18	11	26
											1984	2.42	39	9	15	9	16	9	18	10	24
											1983	2.48	40	9	15	9	16	9	18	9	21
											1982	N/A	41	9	15	9	16	9	18	9	21
											1981	N/A	42	9	15	9	16	9	18	9	21
											1980	N/A	43	9	15	9	16	9	18	9	21
											1979	N/A	44	9	15	9	16	9	18	9	21
NO MANDATORY MINIMUM PERCENT GOOD INTENDED																					
Please refer to Handbook Memo 5430-1 for Marshall Valuation Service's salvage value percentages.																					

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Note: Cells have been shaded orange in the year of the Maximum Price Index Factor (MPIF). For a definition see Memo 5430-1, Section 2.2.

SALVAGE VALUE

Definition:

“Salvage value is the value which badly depreciated improvements, machines, or equipment would have if dismantled and sold in separate parts or pieces; the value of an asset at the end of its economic life.”¹

“The value of property at the end of its economic life in its present use; the estimated market value of an entire property (e.g., a house) or for a part (or parts) of a property (e.g., the plumbing fixtures or doors of a house) that is removed from the premises for use elsewhere.”²

Value:

The following table lists average salvage value of all equipment and fixtures by industry. Thus, all the equipment in a bakery, taken as a whole, might be expected to have a 10% remaining salvage value when fully depreciated. If the installation is unmarketable, however, then the value could go to zero.³

Average Salvage Value Percentages

Airplane manufacturing.....	10%	Library.....	10%
Apartment.....	10%	Logging equipment.....	10%
Bakery.....	10%	Metalworking.....	12%
Bank.....	10%	Mining, milling.....	8%
Bottling.....	10%	Motion picture.....	12%
Brewery, distillery.....	8%	Office equipment.....	12%
Candy, confectionary.....	10%	Oil refining.....	7%
Cannery - fish.....	8%	Packing - meat.....	7%
Cannery - fruit.....	8%	Paint manufacturing.....	7%
Cement manufacturing.....	8%	Paper manufacturing.....	7%
Chemicals.....	6%	Printing.....	10%
Church.....	10%	Refrigerating.....	8%
Clay products.....	7%	Restaurant.....	14%
Construction equipment.....	14%	Rubber.....	9%
Creamery - dairy.....	11%	School.....	10%
Dwelling.....	12%	Sewage disposal (city).....	7%
Electronic equipment manufacturing.....	10%	Shipbuilding.....	9%
Electronic power equipment.....	10%	Steam power.....	10%
Flour, cereal, feed.....	8%	Store.....	10%
Garage.....	10%	Textile.....	8%
Glass manufacturing.....	8%	Theater.....	12%
Hospital.....	12%	Warehousing.....	10%
Hotel.....	10%	Waterworks, (city).....	6%
Laundry - dry cleaning.....	10%	Woodworking.....	10%

¹ Glossary for Property Appraisal and Assessment, International Association of Assessing Officers, P. 152, First Edition, 1997.

² Assessor's Handbook Section 501, Basic Appraisal, California State Board of Equalization, P. 148, Third Revision, 1997.

³ Marshall Valuation Service, Section 97, P. 26, October 2012. Used by permission.

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